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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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GERSTENZANG, WILLIAM C. NORRIS MCLAUGHLIN & MARCUS, PA 875 THIRD AVE, 8TH FLOOR NEW YORK, NY 10022			PATEL, RONAK C	
			ART UNIT	PAPER NUMBER
			1788	
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			06/07/2011	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/539,784	YUN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	RONAK PATEL	1788	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-12, 14-29 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) 17 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-12, 14-16, 19-29 and 31-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/19/2011 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-2, 5, 8, 14, 15, 19, 20, 21, 23, 26, 27 31, 29, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domine et al. (WO/2002/078953). Domine et al. (US 2004/0161623) will be used to cite the prior art.

4. Regarding claim 1, 2, 5, 14, 19, 20, 23, 29, 31 Domine discloses a laminate and a formation of a laminate having at least one layer of an ionomer and at least one layer of an acid polymer and a thermoplastic polyolefin (abstract). Domine discloses an embodiment in figure 1, where b represents the tie-layer and a represents at least one ionomer layer (para 0020). Domine discloses that ionomers useful are ionic compounds

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which are copolymers of C2 to C4 alpha-olefin derived units (ethylene) and C3-C6 alpha, beta ethenically unsaturated carboxylic acids (para 0029) and metal ions suitable for forming the copolymers comprise mono-di or tri-valent metal ions such as Na<sup>+</sup> (para 0030) and the ionomer useful either alone or in blend of two or more ionomers generally include 20 wt% alpha-olefin derived units by weight of the copolymer and from 1 to 15 wt% of alpha, beta ethylenically unsaturated carboxylic acid (para 0031) and the polymer may be neutralized to from the ionomer to any degree between 10% to 90% (para 0030 and 0032, 0038). Domine discloses that the tie layer comprises a blend of an acid polymer and another polymer such as alpha olefin polymer and the tie layer having a thickness in the range of from 2.5 to 6000 micrometer (para 0044) and the tie layer comprises PP homopolymers, PE homopolymers and copolymers, polycarbonates, polyamides, HDPE (para 0052). The tie layer may comprise hot melt adhesives, which makes the layer an adhesive layer.

5. Although, Domine does not explicitly discloses tie layers and ionomer layer use to form an easy tear, halogen free winding tape, it therefore would be obvious that as Domine does disclose a tie layer comprising adhesives in the layer, it therefore would intrinsically perform as the tape and would be easy tear and as Domine does not disclose the presence of Halogen in the layers, the tape would be free of Halogen.

6. Since the feature, "monoethylenically unsaturated monomer set forth in claim 1, is optional. Since this feature may be absent, the claimed limitation is taught when the feature is absent.

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7. Although Domine does not disclose that the film is blown film extruded film layer, i.e. produced by blow film extrusion and the draw ratio is 2 to 25 and blow up ratio is situated in the range from 1 to 4 and film layer is produced by calendar processing it is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) . Further, "although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product", *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

8. Therefore, absent evidence of criticality regarding the presently claimed process and given that Domine meets the requirements of the claimed product, Domine clearly meet the requirements of present claims.

9. Regarding claim 8, Domine discloses in figure 3, where there is a' layer between the tie layer and the ionomer layer, which meets the limitation of a primer layer between a film layer and the adhesive layer. As to claim 26 and 27, which depends on claim 8, since the feature, "amount of an adhesive layer is 18 to 28 g/m<sup>2</sup> and the unwind force at an unwind speed of 300 mm/min is 1.6 to 4.0 N/cm or the holding power is more than 150 min." set forth in claim 1 and further limited by claim 26 and 27, is optional. Since

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this feature may be absent, the claimed limitation is taught when the feature is absent.

The limitation where there is a primer layer between film layer and adhesive layer has already been addressed above.

10. Regarding claim 15, 32 Domine discloses in figure 3, where there is a' layer between the tie layer and the ionomer layer in the composite and the composite further comprises b', which is a tie layer and tie layer comprises PP homopolymers, PE homopolymers and copolymers, polycarbonates, polyamides, HDPE (para 0052).

Domine discloses that the tie layer comprises a blend of an acid polymer and another polymer such as alpha olefin polymer (para 0044). The melt index of the acid polymer is from 0.1 to 40 dg/min (para 0047).

11. Claims 3, 22, 7, 25 are rejected under 35 U.S.C. 103 (a) as being unpatentable by Domine et al. (WO/2002/078953) in view of Vogel et al. (US 2002/0055006)

12. Regarding claims 3, 22, 7, 25 Domine fails to disclose that the fraction of copolymer is at least 50% by weight. However, Vogel discloses a multilayer, coextruded ionomeric thermoplastic sheet and film (para 0003) and discloses that the ionomer composition consists of a copolymer derived from ethylene and alpha olefin unsaturated carboxylic acid wherein the copolymer is neutralized with metal ions and the ionomer is present in the range from 60 to 40 weight percent (para 0031). The monolayer sheets are preferably about 1 to 50 mils thick (para 0088), 1 mils = 25.4 micrometer, which meets the claim limitation of claim 25 and also discloses an ionomer monolayer which can be clear or pigmented (para 0091). The motivation of using the resin composition in a fraction of 60 to 40 % by weight and film layer thickness in the range of 1 to 50 mils

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thickness is to have composition to enhanced mar resistance and have clear and low haze levels and outstanding melt strength (para 0139 and 0140)

13. In light of the motivation of using the resin composition of ionomer with ethylene unsaturated carboxylic acid in 40-60 % by weight and in the thickness of range 1 to 50 mils as taught by Vogel as described above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to use the resin composition in 50 wt% as taught by Vogel in the film layer (ionomer layer) of Domine motivated by the desire to form a composition to enhanced mar resistance and have clear and low haze levels and outstanding melt strength (para 0139)

14. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Domine et al. (WO/2002/078953) in view of Riedel (US 5679190).

15. Regarding claim 6, Domine fails to mention that the tensile strength by the method of Elmendorf in the machine direction is at least twice the tensile strength in the cross direction. However, Riedel mentions the pressure sensitive adhesive tape having the tensile strength in the machine direction is at least twice the tensile strength in the cross direction (Table 2; col 15, line 28). Riedel mentions the ratio of the tensile strength in the MD:CD is more than two in the PSA tape would have good tearable characteristics (Table 2).

16. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the multilayer structure of Domine to prepare the multilayer winding film that is hand tearable by having a ratio of tensile strength in the machine direction to be at least twice the tensile strength in the cross direction of Riedel by using the process

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conditions known in the art motivated by the desire to improve the tear properties of the film.

17. Claims 10-11 are rejected under 35 U.S.C. 103 (a) as being unpatentable by Domine et al. (WO/2002/078953) in view of Mientus (WO 99/64239).

18. Regarding claim 10, Domine fails to disclose the multilayer film comprises the pressure sensitive adhesive which is polyacrylates based. However, Mientus teaches the pressure -sensitive adhesive can be any including rubber based adhesive, acrylic adhesive, vinyl ether adhesive and silicone adhesives (page 23, line 35, page 24, line 1).

19. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the multilayer structure of Domine with the pressure sensitive adhesive that is polyacrylates of Mientus motivated by the desire to have excellent adhesive properties that would adhere the adhesive layer to the film layer.

20. Regarding claim 11, Tachino fails to disclose that the multilayer film of the winding tape is black. However, Mientus discloses that the multilayer film can be pigmented with different colors such as white, black, yellow, blue and red (page 41, lines 15-20). The motivation for pigmenting the adhesive tape with different colors such as black is to provide desired color to the tape.

21. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the multilayer structure of Domine with the pigmented colors of Mientus in the multilayer film motivated by the desire to provide desired color to the tape.



22. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Domine et al. (WO/2002/078953) in view of Mamish et al. (US 6355344)

23. Regarding claim 12, Domine fails to disclose that the winding film is plasticizer-free or the plasticizer content is sufficiently low to produce a fogging number above 90%. However, Mamish discloses pressure sensitive adhesive film material has a plastic film and a PSA layer (abstract) and discloses that the additives used in the plastic film contributes no halogenated polymers and no plasticizers to the plastic film (col. 6, lines 32-40). The motivation for adding the additives that has no halogenated polymers and no plasticizers to the film is for recyclability and low-fogging (col. 6, lines 32-40).

24. In light of the motivation of having the PSA adhesive film to be plasticizer-free and non halogenated as taught by Mamish above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to not make the multilayer structure of Domine to be plasticizer free as taught by Mamish to form the multilayer adhesive tape to have low-fogging.

25. Claims 16 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domine et al. (WO/2002/078953) in view of Tanaka (EP 333294)

26. Regarding claim 16 and 33, Domine fails to disclose that the layer of the winding tape is crosslinked by ionizing radiation. However, Tanaka discloses multilayered crosslinked ethylenic resin films comprising a laminate of at least two ethylenic layers crosslinked by irradiation with ionizing radiation (abstract). The motivation for

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crosslinking the layer with ionizing radiation is to improve the tear strength of the resin film (page 3, lines 6-9)

27. In light of the motivation of crosslinking the film by ionizing radiation as taught by Tanaka above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to crosslink the layer of Domine by ionizing radiation as taught by Tanaka to form an adhesive tape with improved tear strength.

28. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Domine et al. (WO/2002/078953) in view of Sumida (US 5405565).

29. Regarding claim 24, Domine fails to mention that the tensile strength by the method of Elmendorf in the machine direction is at least four times the tensile strength in the cross direction. However, Sumida mentions the multilayer film having the tensile strength in the machine direction is at least four times the tensile strength in the cross direction (col 21, lines 60-68). Sumida teaches the multilayer film with the tensile strength in the machine direction at least four times the tensile strength in the cross direction would improve the strength of the film and would make it less susceptible to tear (col 22, lines 22-26).

30. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the winding tape of the multilayer film with an adhesive layer of Domine to prepare the multilayer film that is hand tearable by having a ratio of tensile strength in the machine direction to be at least four times the tensile strength in the cross direction of Sumida by using the process conditions and test methods known in the art motivated

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by the desire to improve the tear properties and strength of the film and make the film less susceptible to tear

31. Claims 9 and 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Domine et al. (WO/2002/078953) in view of Varela de la Rosa et al. (US 6927267)

32. Regarding claims 9 and 28, Domine fails to disclose that the adhesive is pressure sensitive dispersion adhesive. However, Rosa discloses a pressure sensitive adhesive (PSA) (abstract) and also discloses an aqueous dispersion comprising the PSA polymer (claim 31). PSA can be solvent-free natural or synthetic resin having a viscoelasticity termed tack (col. 1, lines 14-16). The motivation for using solvent-free pressure sensitive dispersion adhesive in tape application is to exhibit improved cohesion coupled with essentially unchanged adhesion and tackiness (col. 12, lines 4-6) and also they can stick to variety of substrates and makes it simple to use and make it possible to work rapidly when bonding (col. 1, lines 20-28)

33. In light of the motivation of using the pressure sensitive dispersion adhesive in the tape application as taught by Varela de la Rosa as taught above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to use solvent free pressure sensitive dispersion adhesive in the adhesive layer of Domine to exhibit improved cohesion coupled with essentially unchanged adhesion and tackiness (col. 12, lines 4-6) and also they can stick to variety of substrates and makes it simple to use and make it possible to work rapidly when bonding (col. 1, lines 20-28).

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34. Claims 1-3, 7, 8, 14, 19, 20, 21, 22, 25-27, 29, 31 are rejected under 35

U.S.C. 103 (a) as being unpatentable over Vogel et al. (US 2002/0055006)

35. Regarding claims 1-3, 5, 7, 8, 14, 19, 20, 21-22, 23, 25, 29, 31 Vogel discloses a multilayer, coextruded ionomeric thermoplastic sheet and film (para 0003) and discloses that the ionomer composition consists of a copolymer derived from ethylene and alpha olefin unsaturated carboxylic acid wherein the copolymer is neutralized with metal ions and the ionomer is present in the range from 60 to 40 weight percent (para 0031). The monolayer sheets are preferably about 1 to 50 mils thick (para 0088), 1 mils = 25.4 micrometer and also discloses an ionomer monolayer which can be clear or pigmented (para 0091). The metal ions used are sodium, magnesium (P 0033). Vogel discloses that the multilayer structure can be made as HDPE backing ionomer (film layer of the present invention in blend with high density polyethylene)/ionomer (primer layer of the present invention)/tie (adhesive layer of the present invention)/HDPE as disclosed in example 4, P (0196-201). Vogel discloses coextrudable adhesives based on blends of various polyethylene are well known to be in tie layer (para 0162) which makes the tie layer an adhesive layer comprising ethylene copolymer. Vogel discloses that neutralization will depend on the ethylene acid copolymers and percent neutralization is about 60% or greater and the melt index is 0.17 g/10min (p 0152-153).

36. Although, Vogel does not explicitly discloses tie layers and ionomer layer use to form an easy tear, halogen free winding tape, it therefore would be obvious that as Vogel does disclose a tie layer comprising adhesives in the layer, it therefore would

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intrinsically perform as the tape and would be easy tear and as Vogel does not disclose the presence of Halogen in the layers, the tape would be free of Halogen.

37. Since the feature, "monoethylenically unsaturated monomer set forth in claim 1, is optional. Since this feature may be absent, the claimed limitation is taught when the feature is absent.

38. Although Vogel does not disclose that the film is blown film extruded film layer, i.e. produced by blow film extrusion and the draw ratio is 2 to 25 and blow up ratio is situated in the range from 1 to 4 it is noted that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process", *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) . Further, "although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product", *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir.1983). See MPEP 2113.

39. Therefore, absent evidence of criticality regarding the presently claimed process and given that Vogel meets the requirements of the claimed product, Vogel clearly meet the requirements of present claims.

40. As to claim 26 and 27, which depends on claim 8, since the feature, "amount of an adhesive layer is 18 to 28 g/m<sup>2</sup> and the unwind force at an unwind speed of 300

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mm/min is 1.6 to 4.0 N/cm or the holding power is more than 150 min." set forth in claim 1 and further limited by claim 26 and 27, is optional. Since this feature may be absent, the claimed limitation is taught when the feature is absent. The limitation where there is a primer layer between film layer and adhesive layer has already been addressed above.

41. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel et al. (US 2002/0055006) in view of Riedel (US 5679190).

42. Regarding claim 6, Vogel fails to mention that the tensile strength by the method of Elmendorf in the machine direction is at least twice the tensile strength in the cross direction. However, Riedel mentions the pressure sensitive adhesive tape having the tensile strength in the machine direction is at least twice the tensile strength in the cross direction (Table 2; col 15, line 28). Riedel mentions the ratio of the tensile strength in the MD:CD is more than two in the PSA tape would have good tearable characteristics (Table 2).

43. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the multilayer structure of Vogel to prepare the multilayer winding film that is hand tearable by having a ratio of tensile strength in the machine direction to be at least twice the tensile strength in the cross direction of Riedel by using the process conditions known in the art motivated by the desire to improve the tear properties of the film.

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44. Claims 10-11 are rejected under 35 U.S.C. 103 (a) as being unpatentable by Vogel et al. (US 2002/0055006) in view of Mientus (WO 99/64239).

45. Regarding claim 10, Vogel fails to disclose the multilayer film comprises the pressure sensitive adhesive which is polyacrylates based. However, Mientus teaches the pressure -sensitive adhesive can be any including rubber based adhesive, acrylic adhesive, vinyl ether adhesive and silicone adhesives (page 23, line 35, page 24, line 1).

46. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the multilayer structure of Vogel with the pressure sensitive adhesive that is polyacrylates of Mientus motivated by the desire to have excellent adhesive properties that would adhere the adhesive layer to the film layer.

47. Regarding claim 11, Tachino fails to disclose that the multilayer film of the winding tape is black. However, Mientus discloses that the multilayer film can be pigmented with different colors such as white, black, yellow, blue and red (page 41, lines 15-20). The motivation for pigmenting the adhesive tape with different colors such as black is to provide desired color to the tape.

48. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the multilayer structure of Vogel with the pigmented colors of Mientus in the multilayer film motivated by the desire to provide desired color to the tape.

49. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel et al. (US 2002/0055006) in view of Mamish et al. (US 6355344)

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50. Regarding claim 12, Vogel fails to disclose that the winding film is plasticizer-free or the plasticizer content is sufficiently low to produce a fogging number above 90%.

However, Mamish discloses pressure sensitive adhesive film material has a plastic film and a PSA layer (abstract) and discloses that the additives used in the plastic film contributes no halogenated polymers and no plasticizers to the plastic film (col. 6, lines 32-40). The motivation for adding the additives that has no halogenated polymers and no plasticizers to the film is for recyclability and low-fogging (col. 6, lines 32-40).

51. In light of the motivation of having the PSA adhesive film to be plasticizer-free and non halogenated as taught by Mamish above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to not make the multilayer structure of Vogel to be plasticizer free as taught by Mamish to form the multilayer adhesive tape to have low-fogging.

52. Claims 16 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel et al. (US 2002/0055006) in view of Tanaka (EP 333294)

53. Regarding claim 16 and 33, Vogel fails to disclose that the layer of the winding tape is crosslinked by ionizing radiation. However, Tanaka discloses multilayered crosslinked ethylenic resin films comprising a laminate of atleast two ethylenic layers crosslinked by irradiation with ionizing radiation (abstract). The motivation for crosslinking the layer with ionizing radiation is to improve the tear strength of the resin film (page 3, lines 6-9)

54. In light of the motivation of crosslinking the film by ionizing radiation as taught by Tanaka above, it therefore would have been obvious to one of ordinary skill in the art at



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the time of invention to crosslink the layer of Vogel by ionizing radiation as taught by Tanaka to form an adhesive tape with improved tear strength.

55. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel et al. (US 2002/0055006) in view of Sumida (US 5405565).

56. Regarding claim 24, Vogel fails to mention that the tensile strength by the method of Elmendorf in the machine direction is at least four times the tensile strength in the cross direction. However, Sumida mentions the multilayer film having the tensile strength in the machine direction is at least four times the tensile strength in the cross direction (col 21, lines 60-68). Sumida teaches the multilayer film with the tensile strength in the machine direction at least four times the tensile strength in the cross direction would improve the strength of the film and would make it less susceptible to tear (col 22, lines 22-26).

57. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the winding tape of the multilayer film with an adhesive layer of Vogel to prepare the multilayer film that is hand tearable by having a ratio of tensile strength in the machine direction to be at least four times the tensile strength in the cross direction of Sumida by using the process conditions and test methods known in the art motivated by the desire to improve the tear properties and strength of the film and make the film less susceptible to tear

58. Claims 9 and 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vogel et al. (US 2002/0055006) in view of Varela de la Rosa et al. (US 6927267)

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59. Regarding claims 9 and 28, Vogel fails to disclose that the adhesive is pressure sensitive dispersion adhesive. However, Rosa discloses a pressure sensitive adhesive (PSA) (abstract) and also discloses an aqueous dispersion comprising the PSA polymer (claim 31). PSA can be solvent-free natural or synthetic resin having a viscoelasticity termed tack (col. 1, lines 14-16). The motivation for using solvent-free pressure sensitive dispersion adhesive in tape application is to exhibit improved cohesion coupled with essentially unchanged adhesion and tackiness (col. 12, lines 4-6) and also they can stick to variety of substrates and makes it simple to use and make it possible to work rapidly when bonding (col. 1, lines 20-28)

60. In light of the motivation of using the pressure sensitive dispersion adhesive in the tape application as taught by Varela de la Rosa as taught above, it therefore would have been obvious to one of ordinary skill in the art at the time of invention to use solvent free pressure sensitive dispersion adhesive in the adhesive layer of Vogel to exhibit improved cohesion coupled with essentially unchanged adhesion and tackiness (col. 12, lines 4-6) and also they can stick to variety of substrates and makes it simple to use and make it possible to work rapidly when bonding (col. 1, lines 20-28).

### ***Priority***

61. Applicant's submission of the English translation of the priority document filed January 19, 2011 has been reviewed and found to be effective to disqualify the prior art status of the Tachino reference (US 2006/0057318) . Accordingly, the rejections of the last office action are hereby withdrawn.

### ***Conclusion***

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62. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RONAK PATEL whose telephone number is (571)270-1142. The examiner can normally be reached on Monday to Friday 8 AM EST to 6PM EST.

63. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alicia Chevalier can be reached on 571-272-1490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

64. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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